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The effects of Economy, Values and Health on Happiness In Iran: the case of the Kish Island

Eilya Torshizian and Mohsen Mehrara

University of Tehran

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The Effects of Economy, Values and Health on Happiness

In Iran: The Case of The Kish Island

Abstract

Increasing happiness of population as the ultimate goal has engaged economist's interest in identifying, measuring and theorizing based on the amount of influence of effective components on happiness. What makes this paper remarkable in contrast to similar studies is its Islamic ideological structure of society and being a free economic zone. Method used to estimating happiness is Structural Equation Modeling (SEM) with latent variables. Results do not confirm presence of the Easterlin paradox in this society and moreover the religious variables are not significant.

Keywords: Behavioral Economics, Economics of Happiness; Structural Equation Modeling (SEM) with latent variables; Subjective Well-Being;

JEL classification: D03;D60;C30

PsycINFO Classification Code: 2900

1. Introduction:

Most human activities and creations are seeking happiness which is arisen from life with ethics and life accompanied by material needs. As a consequence, the effects of happiness determinants play the cardinal role in live of our generation.

Indeed, these determinants are nearly same in different nations, and differences lie at roots of tradition, culture and the economic situation. This paper explores the relationship between happiness and 3 major variables namely: economic situation, health condition and values which all of them are qualitative variables, hence the method of modeling is crucial.

Cultural and regional characteristics are so effective on individual's evaluation of happiness (Fuentes, 2001). Conventional wisdom tells us that Iranian nation is characterized as nationality of strong traditional values unified by Islamic advises, with normal attention to health and nowadays by a traditional economy system. But the Kish Island, which is the society of the paper, is a free zone, that means the details of a free zone affects results of this study. For instance, most residents of Kish Island are seeking work.

As Durlauf (2008) states it does not seem that economics of happiness to be a substitute for economic determinants rather than a complementary role it plays for them by wider range of welfare determinants.

As Rojas (2006) mentioned: "There are three ways of doing research in happiness: First, researchers face the complexity of human beings and study human happiness as such. Second, researchers focusing on the relationship between happiness and relevant variables within their discipline. Third, researcher uses happiness to explain other phenomena". In this study focused on first and second aspects.

The organization of this paper is as follows: Section 2 includes relevant literature regarding the study of happiness, in section 3 the data will describe more and section 4 presents the model in some detail. The main results and findings are presented in section 5 and finally section 6 includes conclusions.

2- Relevant literature:

Happiness

Although it is clear that happiness as a subjective concept cannot be defined by single meaning (Layard R. , 2003), Veenhoven (1994) stated happiness as follows:

Firstly, happiness is not a constant state as people in their longevity change their view of life. Secondly, in same situations, people would not be happy to the same extent and their level of happiness depends on their evaluation of their situation specially relative to others. And last point that happiness is not completely an internal factor and it depends on environment outputs. Happiness makes people successful which it leads economic to rapid growth (Lyubomirsky, King, & Diener, 2005; Kenny, 1999; Veenhoven, 1988).

Policy making, happiness and its determinants

[Insert Figure 1]

Figure 1. Relation between Policy makings, Happiness and its determinants [inspired of (Dowling, 2007) pp.182].

Income and happiness

There are different conclusions over relation between income and happiness. Inglehart (2000) stated that rising in income results eye-catching and significant growth of happiness, but this effect is weak over high levels of income. Hagerty (2003) concluded happiness in countries by lower level of GDP is lower than those have higher GDP levels (Hagerty, 2003; Diener, Lucas, & Oishi, 1999; Easterlin, 1995).

Easterlin paradox

The “Easterlin paradox” suggests that there is no link between a society’s economic development and its average level of happiness (Easterlin, 1974). Dowling (2007) in his book considers Easterlin’s statement that people are always seeking happiness and planning for this purpose. But there are three truths, first, people with more income are overall happier compared with people with lower income. Second, people expect more happiness in the future. And third, happiness is constant over time. In conclusion, material expectations are changing in the same proportion that income changes and people even though they think they are happier, won’t achieve more happiness.

Following studies, happiness as a result of higher levels of consumption diminishes over time (Frey, 2002). Satisfaction is produced by changes, and constant consumption results in diminishing increase of satisfaction. People pay attention to their income compared to others not as an absolute number. (Duesenberry, 1949; Friedman, 1957)

Layard (2005) emphasized job security due to creating happiness. Di Tella (2001) stated the negative effect of rising unemployment is about two times more than the negative effect of increasing inflation rate. And Stutzer (2001) concluded that the level of negative effect of unemployment depends on values of society about living by personal income and being an effective person for society.

Measuring tools

Discussion over happiness measuring tools is so wide (Hoorn, 2007). Measuring it well is equivalent to understanding well (Diener E. , 2009). As Easterlin (2007) mentioned, happiness is the net outcome of satisfaction with all the major domains of life, and no single domain is sufficient to explain overall happiness. In this paper, two common scales used for estimating happiness which are Subjective Happiness Scale (SHS)ⁱ (Lyubomirsky

& Lepper, 1999) and the Satisfaction With Life Scale (SWLS)ⁱⁱ (Diener, Emmons, Larsem, & Griffin, 1985; Pavot & Diener, 1993; Veenhoven R. , 2005).

3. Data:

The empirical analysis was performed using the results of a survey conducted in the Kish Island, Iran. Data collection took place during April and June of 2010 following a one stage cluster sampling design. A questionnaire was designed to collect information concerning the following groups of variables: subjective well-being; life satisfaction; values; positive and negative affect; health; religion; economic; and social and demographical variables (Garcia, Fuentes, Borrego, Gutierrez, & Tapia, 2007). See appendix 3 for a summary of descriptive statistics of the variables.

The population of Kish Island is 20,667 persons that by using Morgan's table (Krejcie, 1970) the appropriate sample size is 378.

In this study 55 variables fueled by 55 questions which includes 2 indices and 6 major variables which identified by factorial analysis method. The variables are as follows:

1- Demographics:

Age

Education level

Marriage status

Marriage satisfaction

Economic level

Sex

2- Happiness:

Happiness rate

Satisfaction of stated happiness rate

Happiness rate of yesterday

Happiness compared to others

3- Economic:

Material possessions

Income compared to others

Economic situation changes

Family income level

Satisfaction of income

4- Health condition:

Personal health

Visits to doctor in last 3 months

Satisfaction with personal health

Importance of taking care to personal health

Exercise

5- Religious status:

Attendance at religious ceremonies

Doing religious tasks

Belief in God

6- Values:

Being honest

Being benevolence

Being active

Being generously

Being wealthy

Being playful

Being scheduled
Being involved in politics
Service to country
Caring about free speech
Not having illicit sexual relations
Wearing Hijab
Not drinking alcoholic beverages
Saving
Not saying convenience lies

4. Model details:

Owing to have major variables which each of them includes observable variables, the Structural Equation Modeling (SEM) with latent variables method preferred (Bollen, 1989; Lomax, 2004; Heady, Veenhoven, & Weari, 1990), that briefly explains below.

By using factorial analysis, the quantitative variables become subset of the major variables and afterwards Maximum Likelihood Estimation (MLE) results in model estimation. The LISREL program which used in this study, for assessing the primary values of parameters uses the instrumental variable method. After that, in order to estimate the relationships of variables, it uses the Covariance matrices.

The model considers a happiness variable as the endogenous latent variable and three latent variables which arise from observable variables.

One of three main elements of structural equations is path diagram. Figure 2 shows the path diagram of happiness elements.

[Insert Figure 2]

Figure 2. Path diagram of happiness elements

As shown in figure 2, observable variables are in the left side, the latent variables are showing beside them, this group of variables are defined by concepts and of course by using the factorial analysis method, next to them another group in the right side named group three, includes another latent variable (Happiness) which is more general than the latent variables of group two. Group four shows explanatory variables of group 3's variable (Happiness).

The figures below show more details of relationships between explanatory variables and latent variables and also clear the groupings of observable variables.

[Insert Figure 3]

Figure 3. Economy and observable variables

As shown in figure 3, the Economy as a latent variable includes many cause variables which are connected to Economic variable with lines.

[Insert Figure 4]

Figure 4. Health and observable variables

In figure 4 and 5 the more details of two important variables are visible. For instance in figure 4, the Health factor includes observable variables such as health condition, Visits to doctor in last 3 months etc.

[Insert Figure 5]

Figure 5. Values and observable variables

[Insert Figure 6]

Figure 6. Relation between latent variables and endogenous latent variable

Figure 6 shows the relationship between latent variables and endogenous latent variable. As it shown, Happiness as a high-level variable includes 3 low-level variables Economy, Health and Values, namely.

[Insert Figure 7]

Figure 7. Happiness and its determinants

As shown in figure 7, the Satisfaction With Life Scale (SWLS) and Happiness Index (HI) are two indices which are estimating Happiness latent variable.

5. Results:

Modeling

Considering last section and by using Lisrel program, the final model estimation is as follows:

$$\text{HAPPINESS} = 0.50 \cdot \text{ECONOMY} + 0.35 \cdot \text{HEALTHFA} + 0.33 \cdot \text{VALUES}$$

(0.068) (0.064) (0.065) (0.13)

7.35 5.53 5.13 3.66

, Errorvar.= 0.46 , $R^2 = 0.54$

Where HAPPINESS stands for Happiness endogenous latent variable; ECONOMY for Economic latent variable; HEALTHFAC for Health latent variable; and VALUES represents the Values latent variable.

As seems above, the effect of economic variable on happiness is more than health and values variables¹ (Heady, Muffels, & Wooden, 2007).

Owing to weakness of happiness estimation by demographics, they abnegated. Another important variable which was not significant in this study is religious variable, in this writer's opinion, maybe it is because of population specific ideological structure.

Global Goodness of Fit Statistics, Missing Data Case

-2ln(L) for the saturated model = 36497.796

-2ln(L) for the fitted model = 37091.299

Degrees of Freedom = 371

Full Information ML Chi-Square = 593.50 (P = 0.00)

Root Mean Square Error of Approximation (RMSEA) = 0.040

90 Percent Confidence Interval for RMSEA = (0.034 ; 0.046)

P-Value for Test of Close Fit (RMSEA < 0.05) = 1.00

¹ It is considerable that development of nations affects the amount of extra happiness that could be bought by economic progress (Oswald, 1997).

Some Outputs

The figures below show some relationships between economic variables and happiness:

[Insert Figure 8]

Figure 8. Relationship between happiness and income

[Insert Figure 9]

Figure 9. Relationship between happiness and relative income

As Shown in figure 8 relationship between income and happiness fluctuates, but totally the relation is positive.

As many studies stated that relative income is a better determinant than income as a raw data (Easterlin, 1995), in this study this statement is approved, that shown in figure 9, which almost displays a positive relation between relative income and happiness levels.

[Insert Figure 10]

Figure 10. Relationship between happiness and satisfaction with income

[Insert Figure 11]

Figure 11. Relationship between happiness and relative possessions

As shown in figure 11, relationship between relative possessions and happiness is slightly direct.

6. Conclusion

The present paper reveals happiness is significantly affected by economic situation. Relationships between happiness and income, happiness and relevant income, and also happiness and relevant possessions, all of them are direct; As a result, compared to similar studies, the Easterlin paradox did not visible in this society. As mentioned by Inglehart's about income levels, the positive relations can be the result of society's income and welfare level.

Comparable the results of similar studies, also in this paper relative income is a better determinant for happiness compared to absolute income.

In most studies (ex. Garcia, Fuentes, Borrego, Gutierrez, & Tapia, 2007) one of the most effective factors on happiness, is religious parameters. Although the society of this paper has an Islamic ideological structure, the religious parameters were not significant.

On the whole, people who pay attention to values, experience higher levels of happiness. Moreover, health and values parameters jointly have so important effect on happiness even by absence of higher economic situation.

Method which used to modeling happiness was the Structural Equation Modeling (SEM) with latent variables, which obtained acceptable results; so it is recommended for similar studies.

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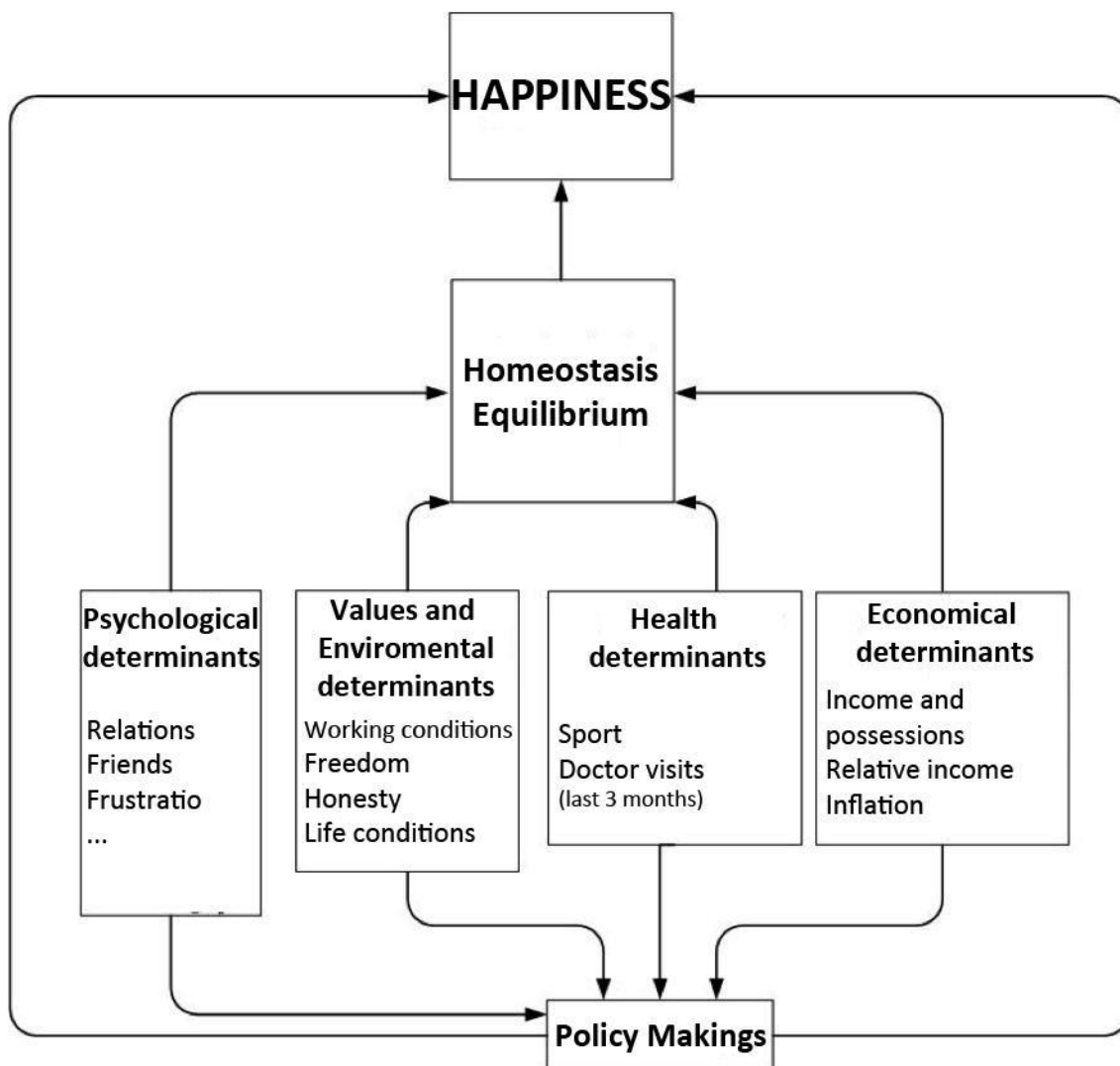


Figure 2. Relation between Policy makings, Happiness and its determinants [inspired of (Dowling, 2007) pp.182].

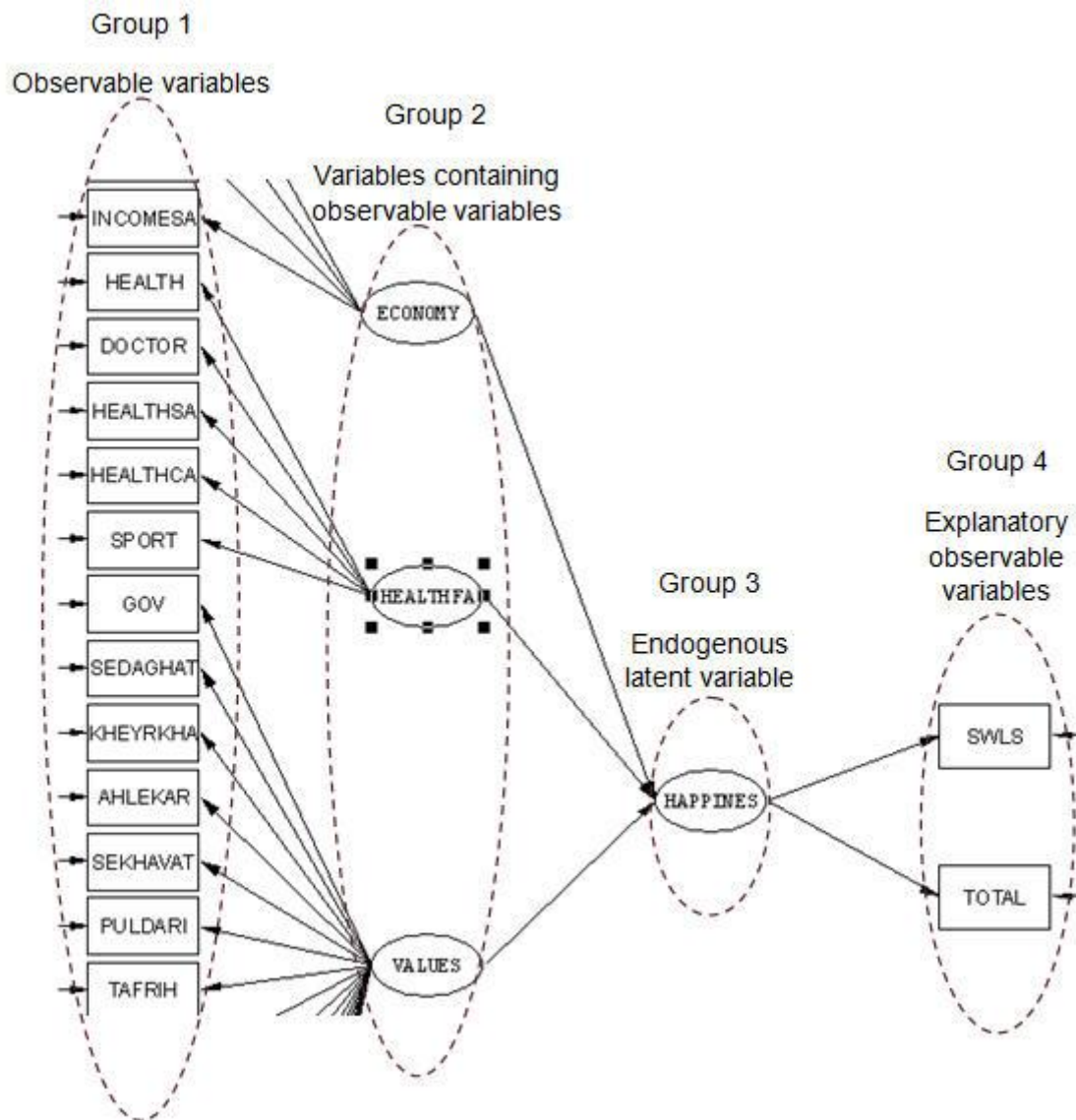


Figure 3. Path diagram of happiness elements

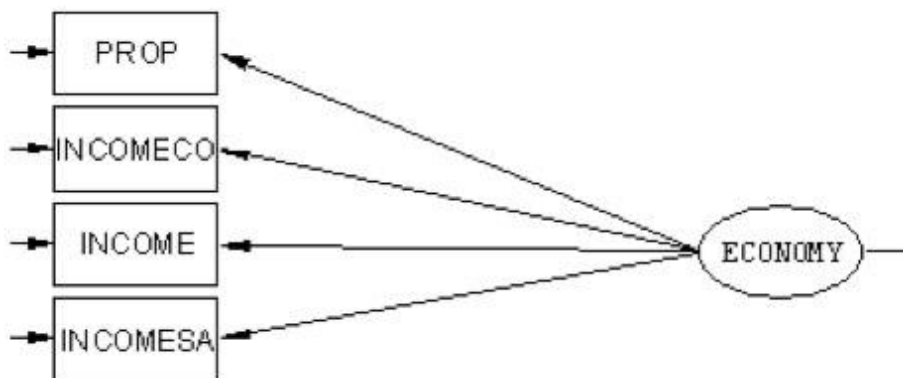


Figure 4. Economy and observable variables

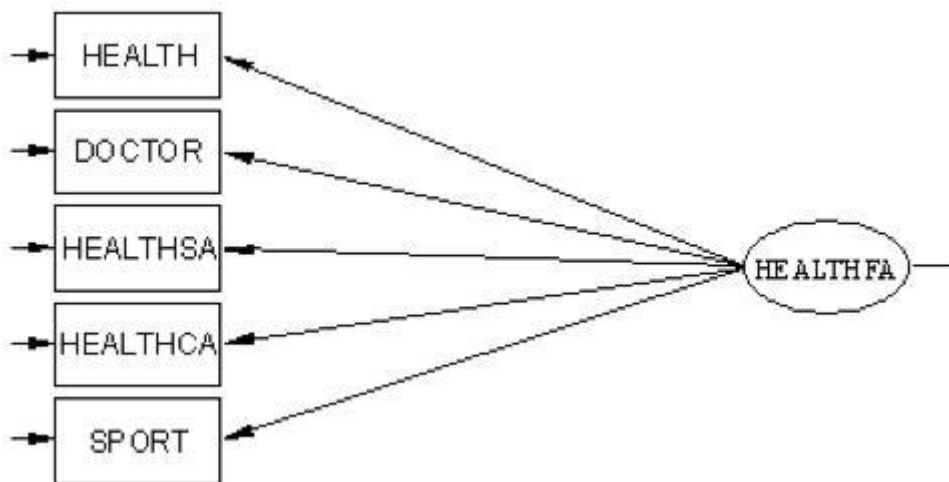


Figure 5. Health and observable variables

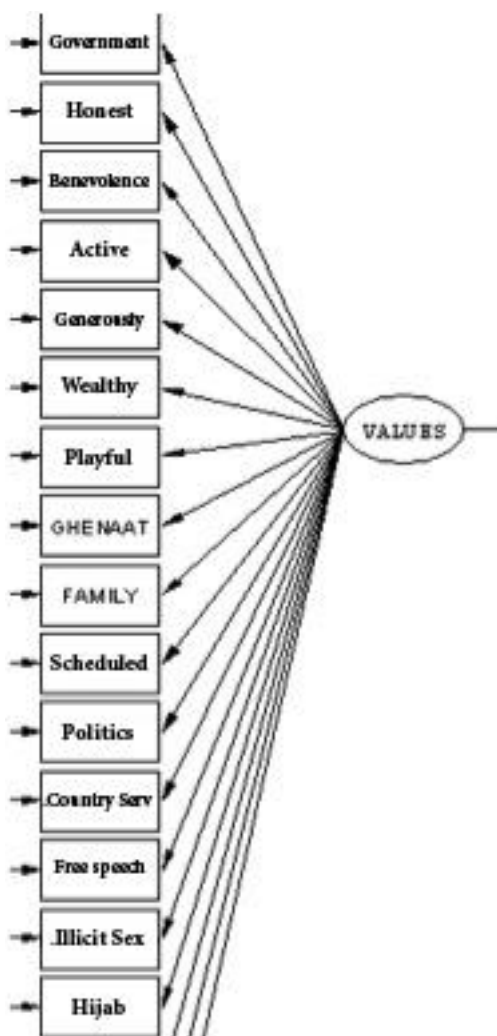


Figure 6. Values and observable variables

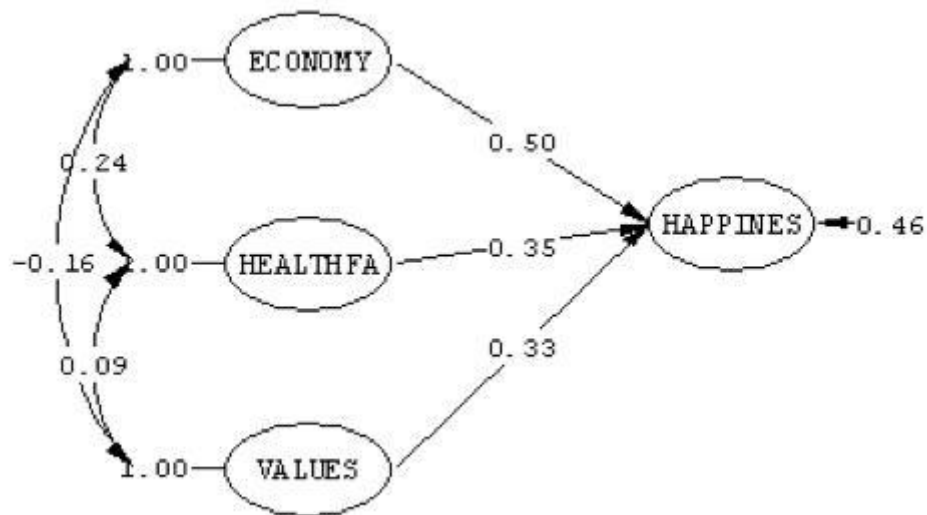


Figure 7. Relation between latent variables and endogenous latent variable

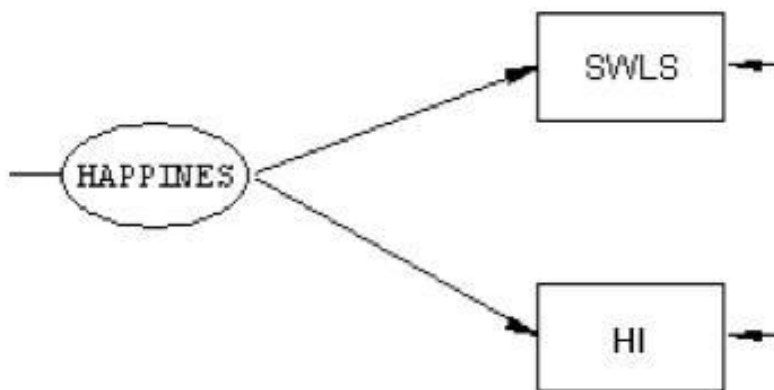


Figure 8. Happiness and its determinants

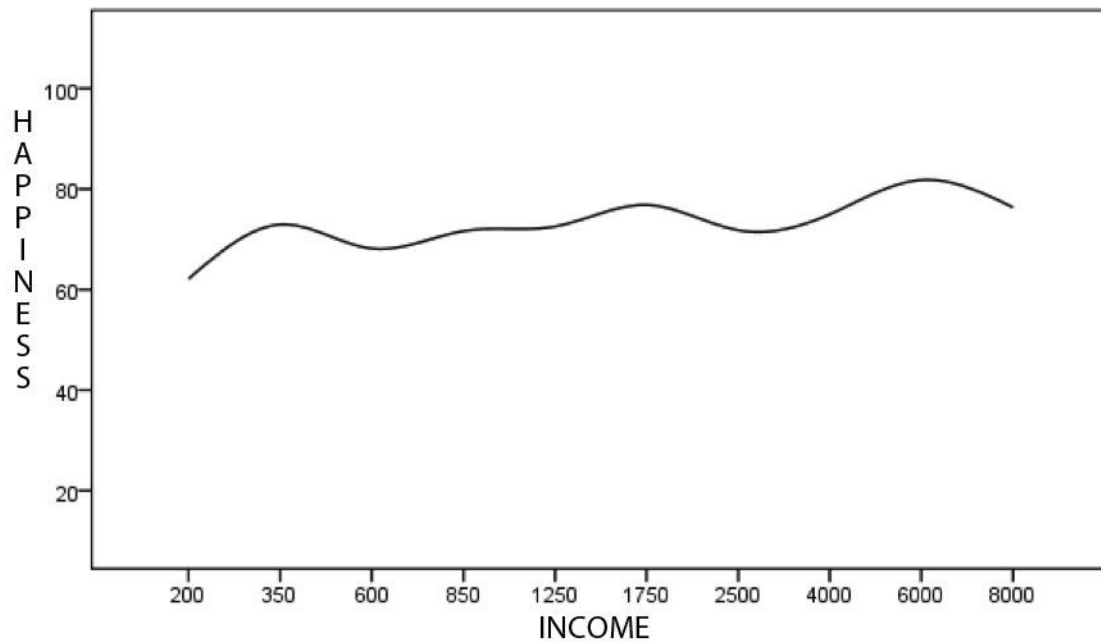


Figure 9. Relationship between happiness and income

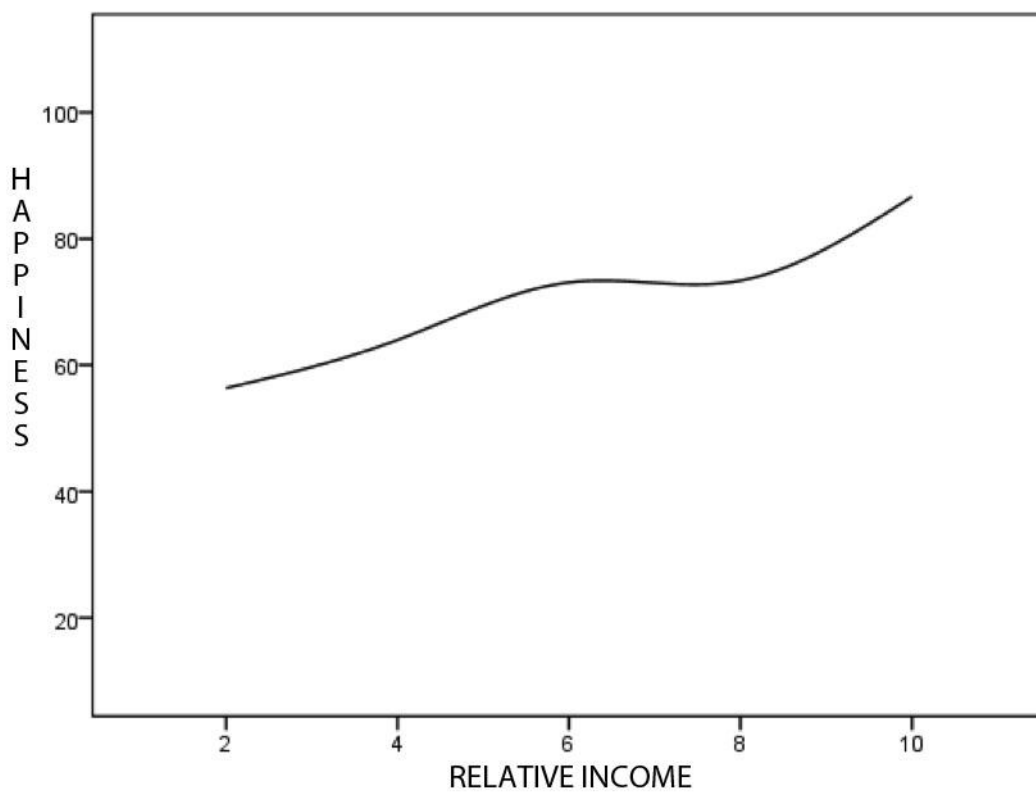


Figure 10. Relationship between happiness and relative income

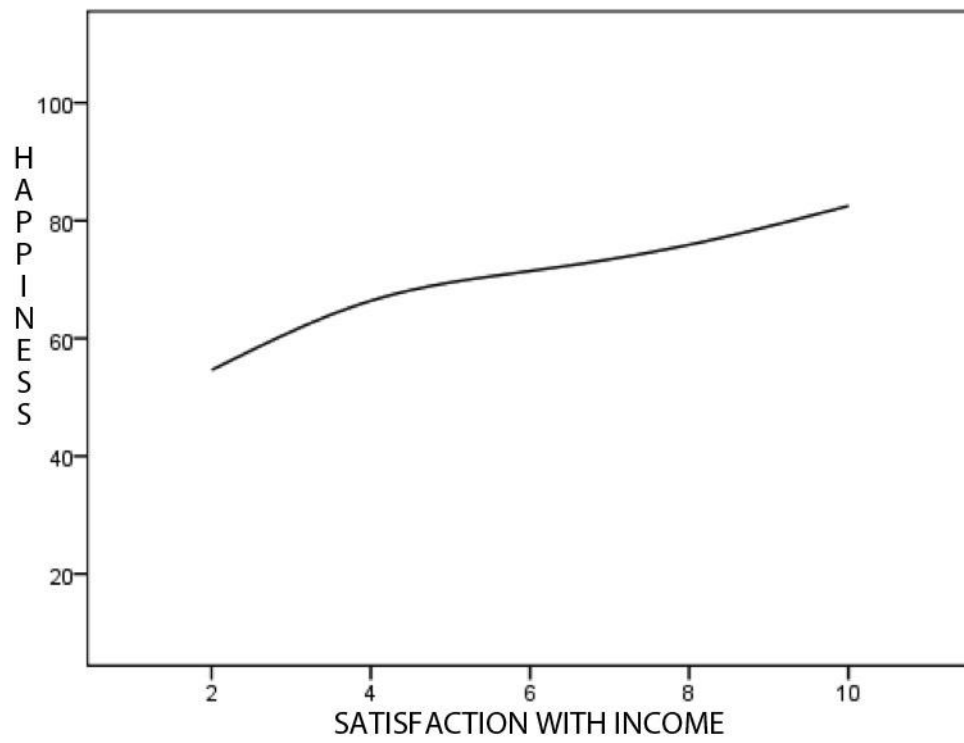


Figure 11. Relationship between happiness and satisfaction with income

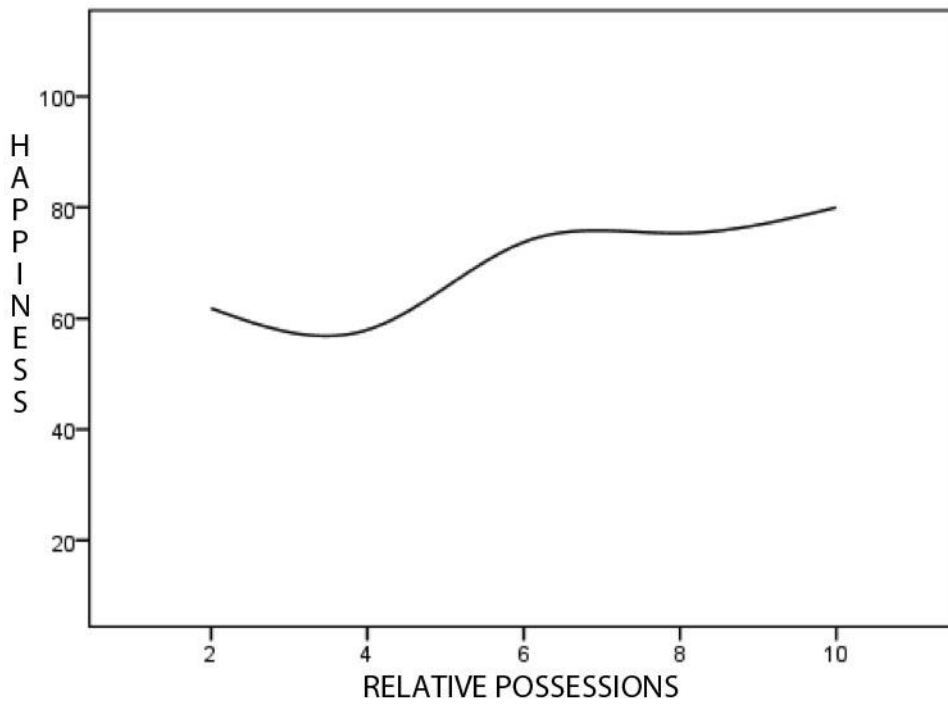


Figure 12. Relationship between happiness and relative possessions

APPENDIX 1

Subjective Happiness Scale

Instructions to participants: For each of the following statements and/or questions, please circle the point on the scale that you feel is most appropriate in describing you.

1. In general, I consider myself:

1 2 3 4 5 6 7

not a very

a very happy

happy person

person

2. Compared to most of my peers, I consider myself:

1 2 3 4 5 6 7

less more

happy happy

3. Some people are generally very happy. They enjoy life regardless of what

is going on, getting the most out of everything. To what extent does this characterization describe you?

1 2 3 4 5 6 7

not at a great

all deal

4. Some people are generally not very happy. Although they are not depressed,

they never seem as happy as they might be. To what extent does this characterization describe you?

1 2 3 4 5 6 7

not at a great

all deal

NOTES

1 The perception of whether one has had a “happy life” arguably is powerfully driven by cultural expectations. For example, in the United States, a happy life is
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said to consist of good health, a good marriage, raising children, having a satisfying career, and owning a home, preferably with a dog and a “white picket fence.” Although a life characterized by these things might be “happy,” its protagonist might not.

2 A Russian translation of the scale is available from the first author.

3 It is worth noting that the stability coefficients for the one-item measures of positive and negative mood (1 = *not at all*; 7 = *extremely*), collected in four of the five studies, ranged from 0.00 to 0.43 ($M = 0.22$) – much lower than the stability coefficients observed for the happiness scale. This finding suggests that responses to the happiness measure cannot be attributed to respondents’ current mood

APPENDIX 2

The Satisfaction with Life Scale

By Ed Diener, Ph.D.

DIRECTIONS: Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number in the line preceding that item. Please be open and honest in your responding.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Slightly Disagree
- 4 = Neither Agree or Disagree
- 5 = Slightly Agree
- 6 = Agree
- 7 = Strongly Agree

- _____ 1. In most ways my life is close to my ideal.
- _____ 2. The conditions of my life are excellent.
- _____ 3. I am satisfied with life.
- _____ 4. So far I have gotten the important things I want in life
- _____ 5. If I could live my life over, I would change almost nothing.

APPENDIX 3

Table 1: Descriptive Statistics

Variables	Minimum	Maximum	Mean	Std. Deviation
Age	20	70	28.37	9.522
Sex	2	3	2.42	.493
Education Level	1	7	4.63	1.535
Education Care	2	6	4.87	1.033
Marriage	3	5	4.43	.537
Marriage Care	2	4	3.34	.689
Eco. Level	20	100	64.24	15.390
Family Num.	1	6	2.76	.987
Happiness	20	100	71.78	19.496
Happ. Satisfaction	20	100	67.57	22.111
Happ. Yesterday	20	100	76.51	20.627
Happiness Compare	20	100	68.10	19.341
Family Satisfaction	40	100	84.52	15.242
Job Satisfaction	40	100	77.26	16.613
Property Compared	2	10	6.02	1.314
Income Compared	2	10	6.53	1.635
Eco. Change	2	10	6.25	3.072
Income	200	8000	1461.33	1754.025
Income Satisfaction	2	10	6.59	2.046
Health (subjective)	4	10	7.80	1.649
Doctor visits	2	8	3.41	1.619
Health Satisfaction	2	10	7.61	1.955
Health Care	2	10	8.45	1.786
Exercise	2	10	6.14	2.401
Religious attendance	2	10	4.53	2.134
Religious Doing	2	10	7.49	3.140
God Belief	4	10	9.85	.615
Government role	2	10	6.34	2.474
Goals Satisfaction	2	10	7.01	1.861
SWLS (SCALE)	0	35	20.20	7.296
Honesty	1	4	3.82	.458
Benevolence	1	4	3.57	.607
Being active	2	4	3.75	.458
Generously	1	4	3.39	.623
Wealthy	1	4	3.08	.806
Playful	1	4	3.34	.663
Contentment	1	4	3.24	.748
Family	1	4	3.83	.427
Scheduled	1	4	3.50	.677

Politics Involved	1	4	2.30	.998
Country Services	1	4	3.04	.951
Free speech	1	4	3.51	.724
Convenience lies	1	4	2.95	.873
Illicit sexual	1	4	2.98	1.019
Hijab wearing	1	4	2.77	1.094
Alcoholic beverages	1	4	2.83	1.136
Saving	1	4	3.37	.730
Happiness (SCALE)	1.00	7.00	4.6373	1.41332

APPENDIX 4

LISREL outputs, Structural Equations:

SWLS = 5.48*HAPPINES, Errorvar.= 23.11, $R^2 = 0.56$
(4.01)
5.76

TOTAL = 0.77*HAPPINES, Errorvar.= 1.40 , $R^2 = 0.30$
(0.10) (0.13)
7.40 11.22

PROP = 1.01*ECONOMY, Errorvar.= 0.70 , $R^2 = 0.59$
(0.063) (0.075)
15.89 9.31

INCOMECO = 1.38*ECONOMY, Errorvar.= 0.76 , $R^2 = 0.71$
(0.077) (0.11)
18.01 6.82

INCOME = 939.21*ECONOMY, Errorvar.= 2189376.57, $R^2 = 0.29$
(91.13) (173596.14)
10.31 12.61

INCOMESA = 1.38*ECONOMY, Errorvar.= 2.29 , $R^2 = 0.45$
(0.10) (0.20)
13.46 11.24

HEALTH = 1.35*HEALTHFA, Errorvar.= 0.89 , $R^2 = 0.67$
(0.078) (0.12)
17.21 7.56

DOCTOR = - 0.70*HEALTHFA, Errorvar.= 2.12 , $R^2 = 0.19$
(0.085) (0.16)
-8.27 13.17

HEALTHSA = 1.76*HEALTHFA, Errorvar.= 0.69 , $R^2 = 0.82$
(0.091) (0.17)
19.47 3.95

HEALTHCA = 0.77*HEALTHFA, Errorvar.= 2.58 , $R^2 = 0.19$
(0.094) (0.20)
8.21 13.20

SPORT = 0.55*HEALTHFA, Errorvar.= 5.45 , $R^2 = 0.052$
(0.13) (0.40)
4.20 13.59

GOV = 1.20*VALUES, Errorvar.= 4.68 , $R^2 = 0.23$
(0.13) (0.37)
8.91 12.58

SEDAGHAT = 0.18*VALUES, Errorvar.= 0.19, $R^2 = 0.15$

KHEYRKHA = 0.19*VALUES, Errorvar.= 0.33 , R² = 0.10
(0.034) (0.025)
5.74 13.35

AHLEKAR = 0.13*VALUES, Errorvar.= 0.20, R² = 0.075

SEKHAVAT = 0.22*VALUES, Errorvar.= 0.34 , R² = 0.13
(0.035) (0.026)
6.33 13.19

PULDARI = - 0.035*VALUES, Errorvar.= 0.65 , R² = 0.0019
(0.047) (0.047)
-0.75 13.65

TAFRIH = 0.062*VALUES, Errorvar.= 0.43 , R² = 0.0088
(0.038) (0.032)
1.63 13.64

GHENAAT = 0.31*VALUES, Errorvar.= 0.46 , R² = 0.17
(0.041) (0.036)
7.52 12.95

FAMILY = 0.14*VALUES, Errorvar.= 0.17, R² = 0.11

TIME = 0.20*VALUES, Errorvar.= 0.42 , R² = 0.088
(0.038) (0.031)
5.27 13.40

SIYASAT = 0.62*VALUES, Errorvar.= 0.60 , R² = 0.39
(0.052) (0.053)
12.07 11.44

KHEDMAT = 0.68*VALUES, Errorvar.= 0.43 , R² = 0.52
(0.047) (0.043)
14.39 10.00

AZADIBAY = 0.15*VALUES, Errorvar.= 0.50 , R² = 0.045
(0.041) (0.037)
3.71 13.52

DORUGHMA = 0.30*VALUES, Errorvar.= 0.67 , R² = 0.12
(0.049) (0.051)
6.15 13.22

ERTEBATJ = 0.25*VALUES, Errorvar.= 0.98 , R² = 0.059
(0.059) (0.074)
4.18 13.19

HEJAB = 0.59*VALUES, Errorvar.= 0.85 , R² = 0.29
(0.059) (0.070)
10.05 12.25

MASHRUBA = 0.43*VALUES, Errorvar.= 1.10 , R² = 0.14
(0.063) (0.084)
6.78 13.07

SARFEJUE = 0.43*VALUES, Errorvar.= 0.34 , R² = 0.35

(0.038)	(0.029)
11.38	11.81
